Message

From: Striplen, Charles J.@Waterboards [Charles.Striplen@Waterboards.ca.gov]
Sent: 3/27/2020 12:43:37 AM
To: Goodwin, Cathleen@Waterboards [Cathleen.Goodwin@waterboards.ca.gov]; Moore, Heaven@Waterboards [Heaven.Moore@Waterboards.ca.gov]; Mues, Pascal [Mues.Pascal@epa.gov]
CC: Reed, Charles@Waterboards [Charles.Reed@waterboards.ca.gov]; Bernard, Lisa@Waterboards [Lisa.Bernard@waterboards.ca.gov]; Watt, Chris@Waterboards [Chris.Watt@Waterboards.ca.gov]
Subject: FW: Humboldt Bay current studies
Attachments: Swanson_Charles_Fall2015.pdf

Hi all,

I sent an email off to one of my Elk River contractors during our call, and he provided this information. You may already be aware of this work, but if not, it should be helpful. Jeff is pretty much the best modeler in the region, so if we have the need and resources to dig into it more – he'd be the guy.

cs

From: Jeff Anderson <jeff@northernhydrology.com>
Sent: Thursday, March 26, 2020 5:35 PM
To: Striplen, Charles J.@Waterboards <Charles.Striplen@Waterboards.ca.gov>
Subject: Re: Humboldt Bay current studies

EXTERNAL:

Hi Chuck

Yes, I have a working circulation model of Humboldt Bay which accounts for depth, velocity, salinity and temperature. But unfortunately I have not jumped into the nutrient part of the modeling effort yet. Would love too, but need time and $$$.

There is a master's thesis by Chuck Swanson that looked at background inorganic nutrient levels in the bay, seasonal cycles, etc. It was a well done thesis, and I provided him information from the model that he incorporated into his thesis. He works as an engineer with SHN now. His thesis was titled: "Annual and seasonal dissolved inorganic nutrient budgets for Humboldt Bay with implications for wastewater discharges". I'm sure this document has a wealth of information on background levels. He collected a number of samples in the bay and transects, so there is concentration data.

Attached is his thesis which I downloaded from HSU library.

Jeff

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On Thu, Mar 26, 2020 at 4:22 PM Striplen, Charles J.@Waterboards <Charles.Striplen@waterboards.ca.gov> wrote:

> Hi Jeff,

Have you conducted (or know of any) current/circulation studies in HumBay that might help inform estimations of background ammonia concentrations in the bay?

cs